

ABSTRACT OF THE DISCLOSURE

[217] An approach for ranging in a radio frequency communications system is disclosed. A transmission channel class that includes at least one of transmission rate, modulation scheme, coding scheme, and transponder footprint is selected by a terminal. The terminal transmits a ranging message according to the selected transmission channel class over a channel. The transmission channel class is selectively modified based upon characteristics of the channel. Accordingly, an optimal transmission channel class is determined for a particular terminal. The above approach has particular applicability to a two-way satellite communications system.